



Deep Efficiency Acquisition: Steps in the Process

Presentation to the N. H. Energy
Efficiency and Sustainable Energy Board
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Topics:

1. What is Happening in Rhode Island... VEIC Role
2. Update on Efficiency Vermont... Electric
3. Update on Efficiency Vermont... All Fuels
4. Dynamics of Deep Efficiency Acquisition
5. Issues Re: Economic Stimulus Package

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1. Rhode Island



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Background: RI

- **Energy Efficiency and Resource Management Council (EERMC)** created by "The Comprehensive Energy Conservation, Efficiency and Affordability Act of 2006"
- Least Cost Procurement Plan submitted consistent with the Act, Sept. 2008.
- Plan has two main parts: **Energy Efficiency** and **System Reliability**
- EE Procurement Plan developed by National Grid with input of Energy Efficiency and Resource Management Council Subcommittee (formerly the Collaborative)
- EE Procurement Plan endorsed by EERMC at its August meeting;
- System Reliability Procurement Plan originally submitted by National Grid, later considered by EERMC at September meeting. This plan was revised and approved by the EERMC on Oct 16th.

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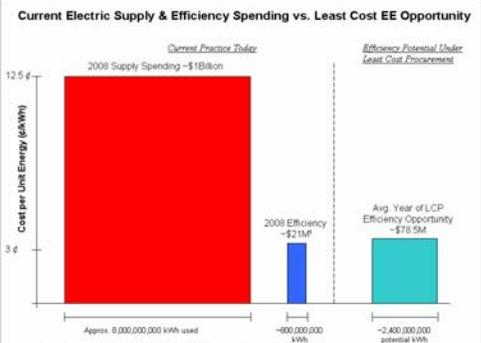
Highlights of Least Cost Procurement Plan: Rhode Island

- Covers three years: 2009-2011
- In energy efficiency, focus is ramping up program delivery efforts toward meeting the requirement and objective of R.I. Gen Laws §39-1-27.7 and the Commission's "Energy Efficiency Procurement Standards" – to "**secure all cost effective energy efficiency**"
- At the same time, the clause "that is prudent and reliable" indicates implementation that it is sustainable and results in quality long-lasting installations
- In system reliability, the focus is to identify customer-side opportunities beyond energy efficiency that may be cost effective and provide the path to lower supply and delivery costs to ratepayers in RI.

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Current Electric Supply & Efficiency Spending vs. Least Cost EE Opportunity



Category	Value	Approx. kWh
2008 Supply Spending	~\$1 Billion	~6,000,000,000 kWh used
2008 Efficiency Savings	~\$11M	~800,000,000 kWh savings ¹
Avg. Year of LCP Efficiency Opportunity	~\$78.5M	~2,400,000,000 potential kWh savings ²

¹ Approximated utility and customer costs for current programs
² kWh savings are lifetime savings for efficiency measures

RI Energy Efficiency Procurement Plan:

- **Doubles energy efficiency savings by 2011 relative to base year of 2008**
- **Creates \$280 million in net lifetime savings benefits for RI consumers over three years**
- **Achieves 90% of "achievable aggressive case" of potential identified in EERMC's July 2008 Opportunities Report**
- Use of the Total Resources Cost test to calculate net benefits as directed by the Commission's Energy Efficiency Procurement Standards .
- Lifetime cost of energy efficiency implemented over three years projected to be **\$0.043/lifetime kWh** compared to **\$0.108/lifetime kWh** for last resort and **\$0.124** for standard offer service.

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Work Plan for 2009: Consultant Focus

- Gas/Electric integration
- Infrastructure and Capacity development
- Regional and national "best practices" and emerging technologies
- Marketing/Awareness and Customer communications
- Phase II Opportunity Report application
- Monitoring & Evaluation
- Quality Control/Assurance
- Low-income RI customers
- Innovative delivery mechanisms
- Innovative partnerships
- CHP, Demand Response and Renewable Energy
- Monitor and Report on 2009 Implementation Progress

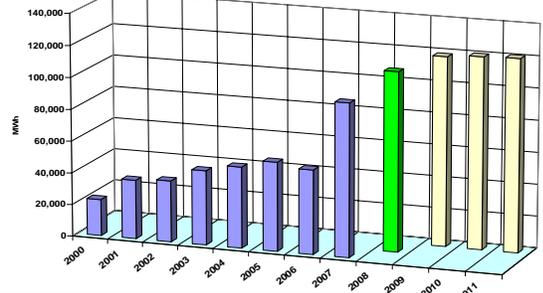
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2. Vermont: Electricity



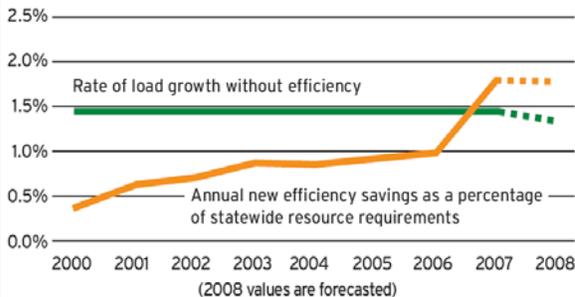
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Efficiency Vermont Annual MWh Savings



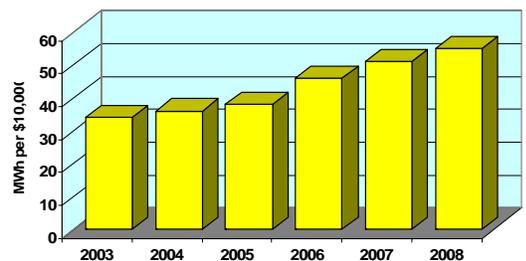
Vermont Load Growth Goes Negative (we hit 2% of sales)

Energy Savings vs. Load Growth



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Efficiency Vermont Savings Yield Rates (MWh per \$10,000 invested)



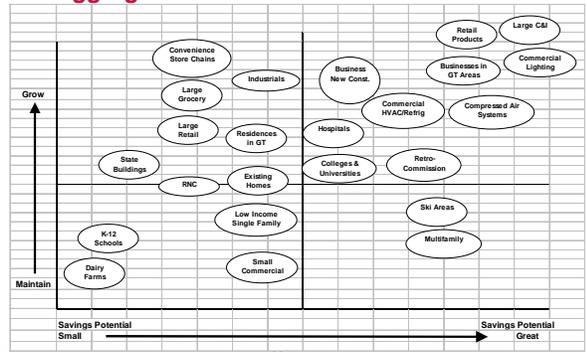
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What's New for 2009-2011?

- New technology
- New financing options
- New initiatives for unregulated fossil fuels
- Expand on the success of Account Management for large business customers
- Changes in geographically targeted initiatives
- Higher-tier efficiency in new construction
- Focus on deeper and more comprehensive savings

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Going Deeper: Market Disaggregation



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Targeting the Market Sub-sectors

Rank	Market	Level of emphasis	Expected magnitude of savings
1	Business accounts with more than 1 MW of demand	grow	large
2	Hospitals and health care	grow	moderate
3	Industrials	grow	large
5	Convenience stores	grow	moderate
6	Large grocery stores	grow	moderate
7	Large retail chains	grow	moderate
8	Colleges and universities	grow	moderate
9	Ski areas	maintain	moderate - large
10	Vermont state buildings	grow	moderate - large
11	Water / wastewater treatment	maintain	small - moderate
12	Small businesses	maintain	moderate
13	K-12 schools	maintain	small - moderate
14	Dairy farms	maintain	small

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Expanded Account Management:

CUSTOM TECHNICAL AND FINANCIAL ASSISTANCE FOR LARGE BUSINESS ENERGY USERS

- Enhanced account management services to all **65** largest business accounts
- Expand account management services to **300** additional businesses during 2009-2011
- Expected 2009-2011 savings from managed accounts of **81,500 MWh**, or **23%** of total expected savings

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New Financing Options

- Enhanced, custom financial analysis for business customers
- State Treasurer / TD Banknorth & VHFA low-interest loans
- More participating lenders with loans for comprehensive, all-fuels home energy improvements
- VEDA loans for major business energy efficiency
- Developing other new business loan partnerships with Vermont banks and credit unions
- Development of new, innovative financing mechanism: "CLEAN ENERGY ASSESSMENT DISTRICT" (CEAD)

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3. Vermont: All Fuels

- Funded by Forward Capacity Market revenues
 - Projected net revenues of \$1.3 million in 2009 (\$5.2 million total for 2009-2011)
- Allows more integrated, comprehensive (electric and non-electric) energy efficiency services and initiatives, by funding efficiency in oil, propane, and kerosene heating
- Focused on achieving Vermont's statutory building energy efficiency goals
- Should complement RGGI-funded unregulated fuels initiatives
- **Challenge:** Integrate with Weatherization and EVT

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Unregulated Fuels Initiatives

- **Already up and running**

Worked with DPS, PSB, Governor to fast-track early programs for winter 2009:

Rebates and low-interest loans for comprehensive home efficiency upgrades and/or replacement of inefficient oil and propane heating systems
workforce training
community door-to-door direct installation pilot

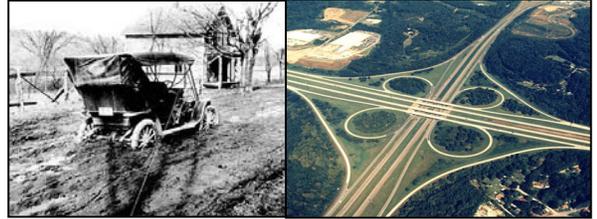


- **2009 – 2011 initiatives**

- Small business incentives to upgrade inefficient heating systems
- New incentives for farms
- More comprehensive services for existing homes
- Additional workforce training

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4. Deep Efficiency Acquisition System: Characteristics



We did it for the automobile.
Why not for efficiency?

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What Will It Take?

Political will

- ❖ **Policy: This is WHAT we are going to do**
- ❖ **Structure: This is HOW we are going to do it**
- ❖ **Money: This is how we will PAY for it**
- ❖ **Continuity: This is us, NOT CHANGING OUR MINDS EVERY TWO YEARS**

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The Principles Can Apply Everywhere

- **Goals**

1. **Clear and Specific**

- Policy stated
- Objectives specified

2. **Mission Alignment: New Self-Definition**

- Remove disincentives
- Strengthen incentives

3. **Motivation**

- Well-designed, performance-based compensation

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- **Goals (Continued)**

4. **Accountability for results**

- Focus on success, not on compliance with pre-approved programs;
- Reward for taking risks
- Services not programs: changes culture

5. **Flexibility**

- Once focus is on results, implementer must have full flexibility to change programs based on what works and doesn't, and to respond to changing markets

6. **Stability and sustained effort**

- Long-term goals and budgets
- Good performance = longevity

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- **Goals (Continued)**

7. **Robust information technology systems**

- Database of all energy efficiency measures installed
- Central database of all electric ratepayer info and usage
- Tracking results by market
- Customer contact database
- Business linkage – corporate and divisions
- Supply chain relationships
- Customer complaint tracking
- Activity reminder for users (deadlines etc.)
- Accurate and timely reporting

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5. Economic Stimulus Bill



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Opportunity and Concern

- \$50 billion dollars headed for energy efficiency and renewable energy spending
- A golden opportunity that is in real danger of being squandered.
- *These funds offer an astonishing opportunity to build the efficiency and renewable energy capabilities of our states and communities.*
- This amount of money, accompanied by an urgency to spend it, runs the risk of overwhelming both the capacity and the capabilities of those who are charged to administer it.
- Energy efficiency and renewable energy have long been the orphans of U.S. energy policy. **A sudden readiness with the checkbook cannot substitute for good policy, solid planning, intelligent capability-building and smart investment strategies.**

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Four principles should guide the expenditure of these funds.

- **Build on what works.** Use the funds to expand, supplement and improve effective efforts that are already under way. Do not create whole new initiatives that are not sustainable, but could leave behind administrative and bureaucratic complexity.
- **Work for integration and coordination.** Use funds to overcome irrational limits and barriers to existing programs, which have been chronically under-funded. Overcome the silos that have separated electric, gas, other fuels, and on-site renewable energy.
- **Plan for effectiveness.** Set clear goals, performance objectives and savings targets for new expenditures. Put in place the structures that will provide for accountability and facilitate learning. Identify who will be held accountable.
- **Plan for Growth.** Use a portion of funds for job training so that a whole new job force is created. Plan for future sustained funding so those jobs and the savings gains do not disappear.

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One Example: Weatherization for All

- Existing low income weatherization programs have suffered from erratic funding from the Federal Government.
- Use stimulus funds to create a sustained whole-house energy retrofit program that is a partnership among Weatherization, Gas utilities, providers of other heating fuels, and electric utilities.
- Consider Home Performance with Energy Star effort, and appropriate income-scaled incentives.
- Eliminate the “cliff” that means the working poor get no efficiency services if they earn a dollar too much.
- Plan for sustained funding

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Discussion: New Hampshire Opportunities

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